

Smoky Mountain Bible Institute

Geology 102 Our Planets context

Welcome back class. Astronomy (the study of stars) is a separate field of science, panning out and taking a broader look. However, it can be beneficial in understanding the Earth and its geology. It may seem a bit odd to start our study of what the Earth is made of in the vastness of space, but nothing exists in a vacuum, and that includes the Earth. A perfect vacuum is only theoretical, just like absolute zero is theoretical. The vastness of space is hard to fathom, and equally difficult to fathom is that all that space is full of particles—photons, gravitons, dark energy, and space dust. There really is no such thing as empty space. Space is full of particles of every size. The large spheres that burn are called stars and the ones that are not on fire are called planets. Meanwhile, moons, asteroids, comets and meteorites fill out the spheres, and particles and clusters in-between. That being said, the universe is estimated to contain some 100 to 300 sextillion stars, and the number of planets is theorized to be even greater. Over 99% of the matter in the known universe is hydrogen and helium, leaving less than one percent of the rest to all the heavier elements (the stuff the Earth is made of): iron (32.1%), oxygen (30.1%), silicon (15.1%), magnesium (13.9%), sulfur (2.9%), nickel (1.8%), calcium (1.5%), and aluminum (1.4%); with the remaining 1.2% consisting of trace amounts of many other elements.

The current estimated age of the universe is 13.7 billion years, an estimate that is flawed, and leaves more questions than answers. The universe is full of young blue stars. It is posited that new stars are forming all the time. However, this has NEVER been observed. Not once! Planets like Neptune and Uranus have a high gravitational strength that is puzzling based on known rates of gravitational decay. If our Sun is billions of years old, it should currently rotate about once every three hours, but it currently rotates once every 25 days. Our sun is also relatively calm compared with most other stars, and when it does send out a flare or a CME, (coronal mass ejection), the radiation is absorbed and deflected by our magnetic field. This is what causes the phenomena called the aurora borealis.

There are other unique qualities of Earth found in no other (known) planet that make it uniquely habitable in accord with **Isaiah 45:18** "*He formed it to be inhabited!*" Our Earth's 23.5 degree tilt does more than give us seasons—it provides the proper warming to give us two large temperate zones on either side of the equator, making most of the Earth's land surface habitable. Our Earth's size provides for proper gravity, with the abundance of water, and a moon to keep its oceans from becoming stagnant. These are all key ingredients to a perfectly balanced sphere in an otherwise chaotic universe. The question of whether or not there is extraterrestrial life is not addressed in Scripture. If God wanted to create life somewhere else, he certainly could have; but when we consider the little we know of this universe and its inhospitable and extreme hostility toward even the extremist of known life forms, it is statistically highly unlikely that life as we know it could exist anywhere else.

In understanding the physical nature of the Earth, early science first got many things wrong. Then it caught up with God's word, and finally in many cases, rejected God's truth and started creating its own. There are some interesting examples. **Isaiah 40:22** "*It is he who sits above the circle of the Earth*" could be understood as saying *sphere*, as biblical Hebrew lacked the word *sphere*. However, the scientific community once held the Earth to be flat, and so too did the early church, but this was man's error, not God's or His word. **Jeremiah 33:22** "*the host of heaven (stars) cannot be numbered.*" Numerous ancient astronomers claimed to have identified all the stars. The last time this claim was made was by Ptolemy, and the number was 1100. **Job 26:7** "*He hangs the Earth on nothing.*" The scientific community once held that the Earth rode on the back of a large beast. **1 Corinthians 15:41** "*star differs from star.*" Science once held that all stars were the same. It also once proclaimed that light was fixed, air was weightless, and wind blew only straight, **Job 38:19-20** "*Where is the way to the dwelling of light, and where is the place of darkness, that you may take it to its territory and that you may discern the paths to its home?*" **Job 28:25** "*When he gave to the wind its weight and apportioned the waters by measure.*" **Ecclesiastes 1:6** "*....around and around goes the wind, and on its circuits the wind returns.*" Science once claimed that the ocean floor was flat, and that it was fed only by rivers, streams and rain. **Jonah 2:5-6** "*The waters closed in over me to take my life; the deep surrounded me;*

weeds were wrapped about my head at the roots of the mountain” and Job **38:16** *“Have you entered into the springs of the sea.”* Many of these references are poetic in nature, but they carry a strange knowledge of the way the world is when man had little or no understanding in this area of science. I'm just sayin;-)

Well, enough of our view from space. Next lesson we will start a discussion on rock types, plate tectonics, Ice Ages, and canyons & fossils, and we will do so in light of a world-wide flood—a perspective long since abandoned by those who think themselves more learned than God's word. Thank you for visiting the Institute.